

further in view of *Pankratz* (U.S. Patent No. 4,517,477). Please note that although the *Miller* patent has been cited as a primary reference, Form No. PTO-892 Notice of References Cited does not contain a listing of the *Miller* patent nor was a copy of such patent included with the Office Action. It would be appreciated if the Notice of References Cited can be amended to include the *Miller* patent so that there will be no question in the future that such patent has been considered and cited by the Examiner.

The *Miller* and *Pankratz* patents have been carefully reviewed and it is believed that claim 1, as now amended, patentably distinguishes over such references as combined by the Examiner. As clearly specified in the *Miller* patent, the *Miller* invention involves a flywheel system having permanent magnets 20 disposed on a flywheel 10 rotating about a shaft 12 that is provided with a stator 28. The stator 28 is movable with respect to the shaft 12 and the flywheel 10 and it only produces an electromagnetic field to provide an electromagnetic engagement of the stator 28 and the rotor/flywheel 10 to either reduce or increase the speed of a wheel 84 through various electrical circuitry. Furthermore, the rotor/flywheel 10 does not have a fixed connection with the shaft 12 and instead is rotatable thereto. As a result, rotation of the flywheel 10 is affected only by the electromagnetic inner action between the electromagnetic engagement of the stator 28 and the flywheel 10 and the flywheel system of *Miller* can in no way be used as a motor.

In contrast to the teachings of *Miller*, the present invention provides a motor that includes a plurality of rotor magnets positioned on a rotor attached in a fixed position relative to a main shaft of the motor, and a plurality of drive magnets on a

drive magnet hub located generally proximate to the rotor. The drive magnet hub is movable for varying the distance between the rotor magnets and the drive magnets for increasing and decreasing the magnetic drive force applied to the rotor magnets by the drive magnets to cause the rotation of the rotor which in turn causes rotation of the main shaft. Such rotation is directly caused by the magnetic forces acting between the rotor magnets and the drive magnets in contrast to the electromagnetic engagement between the stator 28 and flywheel 10 of the *Miller* patent which depends upon the electrical signals that are supplied on lines 90 to the coils 52 of the stator 28. Moreover, such rotation of the rotor of the present invention because it is fixed to the main shaft directly causes the main shaft to turn whereas the flywheel/rotor 10 of *Miller* does not affect the rotation of the shaft 12 in a fixed relationship.

The foregoing differences between the flywheel system disclosure of *Miller* and that of the present invention are expressly stated in amended claim 1 and new independent claims 11 and 17. Such differences patentably distinguish from the teachings of *Miller* and preclude any modification of *Miller* in view of the *Pankratz* reference or any of the other cited references as such combination would result in a distortion of the *Miller* invention, which in no way includes the use of a rotor that is fixed to a main shaft. Furthermore, because the *Miller* flywheel system is dependent upon electrical signals being supplied to the coils 52 for controlling motion of the wheel 84, the use of a non-electromagnet in place of the *Miller* stator coils and drive signals would completely negate the operation of the *Miller* flywheel system. For the above reasons, it is believed that dependent claims 1, 11 and 17

now satisfy the requisites for patentability and that the claims dependent therefrom also satisfy such requirements.

With respect to claims 2 and 3, the Examiner rejected such claims under 35 U.S.C. § 112 as containing subject matter not described in the specification. Accordingly, such claims have been amended to correct such deficiency. The same rejection was made for claim 4. However, upon reviewing claim 4 the term "timing mechanism" could not be found and it is believed that such rejection was inadvertently made.

In view of the foregoing amendments and remarks, it is believed that this application is now in condition for allowance and the same is respectfully requested. A "Marked Up Version Showing Changes Made" and a Clean Copy accompany this response.

Respectfully submitted,

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ATTORNEYS FOR APPLICANT

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**WHAT IS CLAIMED IS:**

1. A magnetic motor comprising:
  - a plurality of rotor magnets positioned along a rotor [and] attached to a main shaft;
  - a plurality of drive magnets positioned along a drive magnet hub and located generally inside the rotor;
  - the drive magnet hub being laterally movable into and out of the inside of the rotor for varying the distance between the rotor magnets and the drive magnets to increase and decrease the magnetic drive force applied to the rotor magnets by the drive magnets and thereby control[ling] torque and speed of the shaft.
2. The magnetic motor of claim 1 further comprising a timing assembly [mechanism] for receiving power and generating power pulses selectively supplied to each rotor magnet.
3. The magnetic motor of claim 1 wherein the drive magnet hub is laterally [re]movable by a plunger [mechanism].
8. The magnetic motor of claim 1 wherein said motor further includes recharge means for said drive magnets comprising a stationary commutator associated with said main shaft and drive magnet recharge brushes in electrical contact with said commutator.

10. The magnetic motor of claim 1 wherein said motor further includes a magnetic motor assembly that forms a chamber in which said drive magnets and said rotor magnets are located and also includes oil supply means to provide cooling oil to said chamber wherein heat is generated during operation of the motor.

11. A magnetic motor comprising:

a plurality of front rotor magnets positioned along a front rotor attached to a main shaft;  
a plurality of front drive magnets positioned along a front drive magnet hub and located generally adjacent said front rotor magnets;  
said front drive magnet hub being movable with respect to the front rotor magnets for varying the distance between said front rotor magnets and said front drive magnets for increasing and decreasing the drive force applied to said front rotor magnets by said front drive magnets and thereby controlling the torque and speed of said main shaft;

a plurality of rear rotor magnets positioned along a rear rotor attached to said main shaft;  
a plurality of rear drive magnets positioned along a rear drive magnet hub and located generally adjacent to said rear rotor magnets;  
the rear drive magnet hub being movable corresponding to the movement of said front magnet hub with respect to said rear rotor magnets for varying the distance between said rear rotor magnets and said rear drive magnets for increasing and decreasing the magnetic drive force applied to said

rear rotor magnets by said rear drive magnets and thereby controlling torque and speed of said main shaft.

12. The magnetic motor of claim 11 further comprising a timing assembly for receiving power and generating power pulses selectively supplied to said front and rear rotor magnets.

13. The magnetic motor of claim 11 wherein the front and rear magnet hubs are each movable by a plunger.

14. The magnetic motor of claim 13 wherein each plunger is operated by a hydraulic control mechanism.

15. The magnetic motor of claim 11 wherein the plurality of front and rear drive magnets each have a magnet coil being longitudinally wound around said magnet.

16. The magnetic motor of claim 11 wherein each of the front and rear drive magnets further comprises a pair of recharge plates mounted on opposite poles thereof.

17. A magnetic motor comprising:  
a plurality of rotor magnets positioned along a rotor fixed to a main shaft;

a plurality of drive magnets positioned along a drive magnet hub and located generally adjacent to said rotor magnet;

the drive magnet hub being movable with respect to said rotor magnets for varying the distance between the rotor magnets and the drive magnets for increasing and decreasing the magnetic drive force applied to the

rotor magnets by the drive magnets and thereby controlling the torque and speed  
of said main shaft.

18. The magnetic motor of claim 17 wherein said motor includes a  
cooling oil supply means for supplying oil to said rotor magnets and said drive  
magnets for providing cooling to said magnets during operation of the motor.

19. The magnetic motor of claim 17 wherein the drive magnet hub is  
movable by a plunger.

20. The magnetic motor of claim 17 wherein said motor further includes  
recharge means comprising a rotor magnet recharge commutator associated  
with said shaft, rotor magnet recharge brushes which electrically contact the  
magnet recharge commutator and conductive means extending from said  
recharge commutator to recharge plates associated with said rotor magnets.